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AUTHOR Lyons, Paul

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### **ABSTRACT**

This paper identifies a sample of process-oriented instructional strategies that may assist college faculty in augmenting their teaching repertoire and help students acquire skills used by learning organizations in industrial settings to facilitate problem-solving and quality improvement. It explains the role analysis technique, whereby the instructor and students list and discuss their expectations of each other on the first day of a course. The diagnostic window technique is designed to have the instructor and students identify things that are not working and things that are working in the course during the sixth week of a 15-week semester. Both techniques require students to: (1) work on ill-defined, complex problems; (2) search for novel solutions; (3) give and seek information; (4) benefit from other's differences; (5) honor the contributions of others; (6) question basic assumptions; (7) value heterarchy over hierarchy; (8) deliberately acquire feedback; (9) seek and give evaluation; (10) set goals; and (11) provide self-evaluation. (Contains 13 references.) (MDM)

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# Classroom as Learning Organization: Challenging Assumptions and Processes

Paul Lyons
Professor of Management
MBA Program

Frostburg State University Frostburg, MD. 21532 301-687-4179

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# Abstract

This essay identifies and explains the use of two process and behaviorally-oriented instruction methods that model group-based tasks in the contemporary, learning organization. The essay makes the points that: 1) regardless of discipline or major, our students will eventually populate and lead diverse, evolving organizations; and, 2) faculty can introduce instructional methods that help to challenge student assumptions and mental models used in information processing.



# Classroom as Learning Organization: Challenging Assumptions and Processes

In this brief essay I identify a sample of process-oriented instruction strategies that may assist college faculty to augment their teaching repertoire in several important ways. First, the strategies help faculty to model in the classroom some of the intellectual tasks taking place in today's learning organizations. Second, the strategies encourage critical thinking in students because basic assumptions about interpersonal transactions and deeply-held mental models are challenged. Third, the strategies give faculty some process-oriented activities with which to enhance student understanding of content-domain issues; and, fourth, the strategies offer opportunities for experimentation and the enlivening of classroom interaction.

The bases for the techniques and strategies are: the identity of behavioral characteristics of the learning organization; and, organization development methods and others that are often used in change processes.

# Background

Deliberately and certainly, organizations are changing in terms of values, structures, processes, and expectations. Some of these changes are extraordinary; some changes are shared across many organizations. We need to help our students prepare for living in the new organization. Many of our organizations are undergoing transformations from rather static, function-based entities to something "different." The new organization goes by many names these days such as new paradigm, post-modern, flexible, post post-modern, virtual organization and so on.

What most of us have grown up with and are comfortable with and take for granted, is changing.

Many of our traditional organizations are characterized by pyramidal hierarchy, top-down command and



compliance influences, functional specialization, bureaucratic mechanisms for control, and short-term results orientation. Some of these features have helped to create behavior and habits that may be counter-productive, today, in many situations. Successful businesses that invest greatly in selection of human resources and employee learning (for example, Motorola, Allied-Signal, Inc.) expect that college graduates have substantial content knowledge in the student's specialization and be well prepared in the process and behavioral dimensions of their education. The process and behavioral dimensions such as effective communication skills and negotiation skills are dimensions that play a role in individual and group learning. Individuals at all levels of an organization must combine the mastery of some technical expertise with the ability to interact effectively with customers and clients, work productively in teams, and critically reflect on and then change their own organizational practices (Argyris, 1991).

In most colleges and universities, academic programs and courses are developed by faculty without much direct assessment of the needs of employers and often without much first-hand knowledge of student capabilities for processing and integration of the information given them (Thompson, et al., 1994). Faculty are in command of the content knowledge of their disciplines, however, few faculty have training in or explicit sensitivity to what needs to be done to assist students in process and behavioral development. The lack of training and/or sensitivity does not bode well for educating our students in information processing required in adaptive, evolving organizations.

Regardless of discipline, choice of major, or skills, our students are eventually going to populate and lead diverse, evolving organizations. As faculty, we can introduce some instructional techniques and strategies that model the emerging learning organization. Thus, our students have opportunities to learn in new ways and so do we.



# The Learning Organization

We are witness to the evolution of the learning organization. It is occurring all around us. We find it in the corrective action teams (CAT) for problem-solving of the Bausch & Lomb Corp. and the training in group dynamics of Penril DataComm Networks (Maryland Workplace, 1991); we find it in the self-directed process teams of the Jefferson City plant of Cheseborough-Ponds (Industry Week, 1992). The behavior and practices the learning organization requires and expects suggest new directions and priorities for the education of college students.

Learning organization is the name given to the new, evolving transactional environment of many business and public sector organizations. There is really no such thing as a learning organization. It is a creation in language of an ideal, an approach, a vision, a move toward a type of organization that we want to work in and which can succeed in a world of increasing change and interdependency (Kofman and Senge, 1993). The learning organization is a metaphor for a way of being and it requires behavior that is much different than behavior expected in the more traditional organization. The learning organization requires basic shifts in how we think and interact and these changes go to bedrock assumptions and habits of our culture.

Organizations that survive and succeed are those that quickly learn and adapt. Learning and change are key words in a volatile world economy where new competitors and new alliances of competitors can rapidly transform the playing field. Focusing on continuous improvement, re-thinking fundamental assumptions about operations, risk-taking, and self-management require new and different skills. The learning organization has been identified and defined by several scholars (see, for example,



Bahrami, 1992; Byrne, 1992; Handy, 1989; McGill, et al., 1992; and Quinn, 1992). Learning organizations share several features and practices, for example, they may:

- have a bias for experimentation in terms of goals, processes, and structures;
- emphasize openness, shared values and information;
- view change not as an event but as a condition;
- treat employees not as costs or expenses but as assets or investments;
- embrace diversity in race, gender, age, experience, and global perspective;
- leverage learning with use of multi-functional and/or cross-functional teams;
- reinforce double-loop or generative learning while retaining single-loop learning (or adaptive learning) for routine functions;
- play down command and control authority;
- seek feedback on performance from multiple sources (self, peers, network members, customers);
- encourage risk-taking by helping people be free from fear of failure, and,
- encourage members to be self-controlled, self-disciplined, and self-managed.

# Instruction Models for Use

In the learning organization these behaviors (above) are often demonstrated in a social, interpersonal context in which the motivation and ability to engage in meaningful dialog is critical. Dialog and process observations help to define and re-define focus and procedures as related to core organization objectives and the organization's constitutents. Being an active participant in the dialog and process is important and our student's education should contain many opportunities to practice this behavior. Creating and helping to manage dialog and process is a vital task for faculty.

Dialog and process considerations are made difficult because some basic individual values, common in our culture, seem to get in the way of understanding and learning in interpersonal/social transactions. Argyris (1991) advises that these values are maintained in order to assist us to not feel vulnerable nor incompetent and to help us avoid embarassment or threat. Examples of these values are: to always win and not lose; to maintain unilateral control; to appress negative feelings; and, to be as rational as possible (do ine clear objectives and evaluate behavior in terms of whether or not the



objectives are achieved). Assuming these values are embraced by most of us and if individuals work diligently to confirm or reinforce these values, openness to change may be seriously compromised. These considerations greatly amplify the challenge to faculty.

Linked to the features, above, are several manager and employee practices and/or conditions that may be regarded as important or necessary for the emerging learning organization. Some examples are:

- \* search for novel solutions, opportunities
- \* give and seek information
- \* benefit from other's differences
- \* honor the contributions of others
- \* question basic assumptions, practices
- \* value heterarchy over hierarchy
- \* deliberately acquire feedback
- \* seek, give evaluation
- \* set goals, targets; and,
- \* evaluate your own performance.

Educational experiences that encourage such behavior are often those that focus on ill-defined, complex problems. Often, experiential learning, and some collaborative or team-work in problem finding and problem solving are required.

Kim (1993) suggests that the mental models we each possess are powerful influences on what we believe, what we perceive, and on the language we use. A mental model is an internally held image of how the world works. From his work at the MIT Center for Organizational Learning, Kim has concluded that learning organizations are dependent on individuals improving their mental models and making mental models explicit is crucial in developing new mental models in teamwork contexts.

From their work with teams of managers from several different organizations, Kim (1993), Kofman & Senge (1993), Argyris (1991), and Schein (1993) and others have found that much organizational double-loop learning takes place when individual mental models become integrated among



participants through shared mental models which may then influence organizational action. Double-loop learning "involves surfacing and challenging deep-rooted assumptions and norms of an organization that have previously been inaccessible, either because they were unknown or known but undiscussable (Kim, 1993, p. 45)." Double-loop learning may provide many opportunities for reframing a problem or issue and reframing can lead to a variety of different potential solutions.

In order to spring some of the ideas presented here to life, I introduce two organization development tools (methods). These tools may be used in virtually any course in a college or university. Each of the tools encourages many of the behaviors characteristic of the learning organization. The tools/methods are the ROLE ANALYSIS TECHNIQUE (RAT) and the DIAGNOSTIC WINDOW (see, Lyons, 1993). These are very powerful tools for engaging students in meaningful reflection and analysis. My experience in using these methods with students strongly suggests that regardless of instruction method chosen, the initial issue or problem identified is one that must address something of interest to most students. The issue should be one in which students have a direct stake such as course performance requirements, grading policies, and the like.

Fortunately, for faculty and others, the learning and change technology from the field of organizational development (OD) offers many methods and processes which may be adapted for classroom use. The classroom as learning laboratory is where groups and teams can practice and learn together. Using inquiry methods and active experimentation, participants identify and examine each other's mental models.

# **ROLE ANALYSIS TECHNIQUE**

Assume there are at least two roles in the class: student and instructor. Assume further that the RAT is used in the first meeting of the class as an initial activity. Finally, assume that the basic



performance requirements of the course, as identified in the course syllabus, are not subject to negotiation so as to vitiate or eliminate them. [Note: Behavior stimulated by the various parts of the process are identified in parentheses following the activity]

# Process/Sequence

- 1. Copies of the course syllabus with student performance expectations are distributed to all students.
- 2. Students are given time to read the syllabus and make note of any questions they may have [15-20 minutes].
- 3. Students are formed into groups of five with the task of learning who the students are in their small group, comparing notes, questions, comments about the course from the review of the syllabus, and briefly discussing performance expectations of the course [10-12 min.] (give/seek information; benefit from other's differences; question basic assumptions; acquire feedback).
- 4. The class as a whole, with instructor at chalkboard or flip-chart, (computer "live" board, etc.) will identify, list and discuss specific duties and requirements of the course until the entire group comes to agreement. The syllabus requirements provide the boundaries for this agreement. The final list on the board is recorded (give/seek information; honor contributions of others; question basic assumptions; value heterarchy, acquire feedback; seek/give evaluation; surface/examine mental models).
- 5. The students, as a group, list their expectations of the instructor, particularly as the instructor's behavior affects the performance of the students. These expectations are listed, discussed, modified, and agreed on by the entire group. This list is recorded (search for novel solutions; give/seek information; question basic assumptions; value heterarchy; seek/give evaluation; set goals/targets; surface/examine mental models).
- 6. The instructor then lists his or her expectations and desired behaviors of the student role. Again, these expectations are discussed, modified, and agreed on. Again, the list is recorded (give/seek information; honor contributions of others; question basic assumptions; value heterarchy; acquire feedback; set goals/targets; surface/examine mental models).
- 7. Individually, or with a small group of students, the instructor prepares a written summary of the two roles for later (next class meeting) distribution to the class. An effective way to prepare this summary is to list each of the course requirements and, next to each one, list the agreed-upon behaviors (activities, obligations, expectations) of the students and the instructor.
- 8. This written role profile is distributed to all participants.

## DIAGNOSTIC WINDOW

This method is relatively easy to employ and the entire activity may be completed in less than 90 minutes. This method helps a class to identify important issues and problems. This activity is normally completed in week 6 of a 15-week semester. It helps a group to place priority on a collection of issues. As far as issues go, anything goes: concerns/questions with course content, feedback on



performance/grading, the way in which the class is managed, and so forth. All class members are given a page with this information (see Table 1):

Table 1 Diagnostic Window

		Things that are not working	Things that work	
Amenable to Change	1		2	
Not Amenable to Change	3		4	

The quadrants need to be explained to the class:

- 1. Potential: entries here express things that are not working and are amenable to change. These are the matters we can do something about -- a positive change.

  (example: quality or timliness of feedback on involvement/participation/leadership)
- 2. Operational: entries represent that which is running smoothly and may require some small adjustments. (example: instructor giving of reading material cues, or "tips")
- 3. Disaster: real problem areas that show small likelihood of turnaround. Sets the stage for creative thinking. (example: providing more one to one personal evaluation in a class with 50 or more students)
- 4. Temporary: entries in this quadrant represent issues that are not particularly harmful nor particularly beneficial. (example: policy on make-up work)

# **Process**

1. Students complete the four segments of the Diagnostic Window [10-15 mins.]. Anything regarding the course is fair game (search for novel solutions; question basic assumptions; seek/give evaluation; set goals/targets; evaluate one's own performance; surface/examine mental models).



- 2. Then, place four large sheets of newsprint on the walls and label them 1,2,3, 4. Ask class members to post their responses on the sheets (give/seek information; benefit from other's differences; value heterarchy; acquire feedback).
- 3. Next, the whole class discusses the entries on the sheets of newsprint. Clarification, interpretation, dialog and explanation are most desirable. The idea is to reach consensus on issues and the likelihood of change where change is needed. Hold discussion of the POTENTIAL quadrant until last because it may capture the greatest amount of individual and group energy (honor contributions of others; value heterarchy; seek/give evaluation; evaluate one's own performance; surface/examine mental models).
- 4. Finally, help the class to outline and define some action plans to address the needed/realistic changes. It is important to make sure that the students and the instructor have some specific responsibilities for change. As instructor, one needs to make good on one's promises. The instructor may want to re-visit some of the action plans and adjustments with the class in week 10 as a reality check.

# Conclusion

Both of these activities require students to practice some of the behavior expected in the learning organization. Namely, the students work on ill-defined, complex problems; they search for novel solutions; they give and seek information; they may benefit from the differences and contributions of others; they question basic assumptions and practices; they are made more "equal" with the instructor as they jointly search for solutions; they observe the instructor (and each other) deliberately require feedback; and, goals and targets are set as continuous improvements are sought. Further, the activities help to develop a climate of trust and/or safety within the classroom in which students and instructor are willing to engage in risk-taking behavior.

At this time I have no empirical evidence to support changes in student behavior or attitudes (dependent variables) resulting from the use of the methods. However, there is substantial anecdotal evidence taken from the informal, end-of-course dialog on course outcomes and course content, and, from written remarks on the formal, end-of-course evaluations that indicate that students believe the process activities were useful and important aspects of the course and their learning and development.



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